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Acute Coronary Syndromes

NATIONAL AUDIT PROJECT TO IMPROVE THE QUALITY OF CARE FOR ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION IN TAIWAN

Poster Contributions

Poster Hall B1

Sunday, March 15, 2015, 9:45 a.m.-10:30 a.m.

Session Title: ECG, Cardiac Markers and Triage, Oh My!

Abstract Category: 2. Acute Coronary Syndromes: Clinical

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Background: Despite recent advances, ST-segment elevation myocardial infarction (STEMI) still carries significant morbidity and mortality. This study evaluated the influence of a national audit project of primary percutaneous coronary intervention (PPCI) program on the quality of care for STEMI in Taiwan.

Methods and Results: Since 2009, the Taiwan Ministry of Health and Welfare started to evaluate the quality of PPCI of hospitals. The qualified high-grade PPCI-capable hospitals in Taiwan are that they can perform PPCI 24 hours a day and to achieve a door-to-balloon (D2B) time < 90 minutes (mins) for at least 75% STEMI patients (pts) they treat. There are 2 nationwide acute coronary syndrome registry studies in Taiwan. The first (1st) registry was from October 2008 to January 2010 (N=1426) and the second (2nd) registry started from April 2012 and is still undergoing (N=786, to the end of 2013). Overall, more than 95% STEMI pts received PPCI in Taiwan. The age (60.1 ± 17.3 yrs vs. 60.8 ± 13.5 yrs, $p=NS$) and gender (female, 14.9% vs. 15.6%, $p=NS$) were similar between the 2 registries. After national audit project, the D2B time declined 27 mins from a median of 96 mins in the 1st registry to 69 mins in the 2nd registry ($p<0.001$). There was a corresponding increase in the percentage of pts with D2B < 90 mins (46.7% to 64.6%, $p<0.001$). The declines in median D2B time were observed in pts > 70 yrs (median decline, 32 mins), women (28 mins), anterior MI (30 mins) and pts with cardiogenic shock (37 mins). But the median D2B time was still longer in pts > 70 yrs (79 mins) and women (76 mins) compared with the entire group (69 mins). Although the prescription rate of medications for STEMI are not included in the current national audit project, the in-hospital use of dual antiplatelet therapy (DAPT) (95% to 99.6%), beta blocker (48.8% to 70.6%), angiotensin converting enzyme inhibitor or angiotensin receptor blocker (63.9% to 75.2%) and statin (56.2% to 79.1%) all increased significantly (all $p<0.001$).

Conclusion: There was a significant decline of D2B time for PPCI after starting a national audit project in Taiwan. Although there was improvement, except DAPT, the other evidence-based medications for STEMI were still underused in Taiwan.